

REMARKS

Applicants respectfully request reconsideration of this application as amended.

Office Action Rejections Summary

Claims 14-24 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claims 14-21 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,322,987 of Thomas et al. ("Thomas").

Claims 14-16, 18 and 19 have been rejected under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 5,293,287 of Tzur et al. ("Tzur").

Claims 14-23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over U.S. Patent Publication No. 2002/0025408 of Davis ("Davis") in view of PCT Patent No. WO98/01890 of Granneman et al. ("Granneman") and J. Vac. Sci. Technol. B Vol. 16, No. 6, Nov/Dec 1998, pages 3825-3829 of Wu et al. ("Wu").

Claim 24 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Davis in view of Granneman and Wu as applied to claims 14-23 above, and further in view of U.S. Patent No. 6,696,220 of Bailey et al. ("Bailey").

Status of Claims

Claims 14-24 are pending in the application. Claims 15, 17, 20 and 24 have been amended to more properly define a preexisting claim limitation. The amended claims are supported by the specification. No claims have been added. No new matter has been added. No claims have been canceled.

The specification has been amended to correct minor matters of form. No new matter has been added.

IN THE DRAWINGS

The attached drawing sheets include a change to Figure 1. The sheets which include Figure 1 replace the original. The figure has been amended to include a prior art label. It is respectfully submitted that the proposed amendment to the drawings does not add new matter.

Attachment: Replacement Sheet
Annotated Sheet Showing Changes

Drawing Rejections

The drawings were objected to because elements 432 and 422 were not shown. It is submitted that the reference to elements 432 and 422 in the specification are typographical errors and that the amendments to the specification overcome the objection.

Claim Objection

It is submitted that the amendment to claim 15 overcomes the objection.

Claim Rejections

Claims 14-24 have been rejected under 35 U.S.C. §112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. In particular, the Office Action states:

Regarding claim 14, the limitation “nest” is unclear as to its limiting effect. As to claim 15, the limitation, “a pickup head that receives the disk” although described as further limiting the positioning step is unclear whether the pickup head that “receives the disk” is the nest. As to claim 16, the limiting effect of “creating a low gas pressure and a positive gas pressure” is unclear. As to claim 17, the recitation of a “second port” is unclear because it is unclear whether the second port is part of the pickup head. As to claims 20 and 21, the limitation “elevated temperature” and “embossing temperature” are unclear as to their limiting effect. It is noted that elevated temperature is a relative term. Further, the examiner notes that the limiting effect of an embossing temperature, when no embossing is taking place is unclear as to its limiting effect. As to claim 24, the limiting effect of “an outer dimension” is unclear.

(Office Action, 2/13/07, p. 4)

It is submitted that submitted that the claims are definite. It is submitted that “nest” has a plain meaning of a receptacle and that the limiting effect of “nest” is that the method of claim 1 requires positioning a disk over a nest, or receptacle. In regards to claim 15, it is submitted that it is clear that the pickup head is not the nest. Nevertheless, claim 15 has been amended to clarify that the pickup head is not the nest.

In regards to claim 16, it is submitted that “creating a low gas pressure and a positive gas pressure” is clear. As explained, for example, in paragraph [0029] of the specification of the present application “a combination of substantial low pressure and positive gas pressure around a disk substrate creates a Bernoulli effect.” Such would be understood by one of ordinary skill in the art.

It is submitted that the amendments to claims 17, 20 and 24 overcome the rejections of claims 17, 20-21 and 24. In regards to claim 21, it is submitted that the claim does not need to recite an embossing step in order to claim maintaining the gas at an embossing temperature with a limiting effect. Nevertheless, applicant wishes to note to the Examiner that claim 22 recites a nano-imprinting type of embossing.

Claims 14-21 have been rejected under 35 U.S.C. §102(b) as being anticipated by Thomas. It is submitted that claims 14-21 are patentable over Thomas.

Claim 14 recites:

A method, comprising:
 positioning a disk, having a hole defined by an inner diameter edge of the disk, over a nest; and
 guiding the disk into close proximity of the nest by **directing** gas into the inner diameter hole of the disk.

(emphasis added)

In particular, the Office Action states:

Regarding claim 14, Thomas et al. disclose a method of etching optical servo tracks on a magnetic disk wherein a disk (11) containing a hub (12) with holes (13) and (14) is positioned over a nest/spindle wherein bursts of compressed gas is applied to in such a manner as to rotate the disk and lift the disk off the spindle to form a gas boundary layer to protect it from scratching (col. 3, lines 16-37; col. 4, lines 11-62; Figures 1B, 1C and 2). The examiner notes that by directing sufficient gas pressure to lift the disk (11), comprising the thicker hub (12) section to form a gas boundary layer such that it is not scratched by pin (17), **at least a portion of gas flows into the inner diameter holes (Figures 1C and 2).**

(Office Action, 2/13/07, p. 5)

Applicants respectfully disagree with the assertions in the Office Action. The Office Action asserts that “at least a portion of gas flows into the inner diameter holes” of Thomas and that such anticipates claim 14. It should be noted that claim 14 does not recite that gas merely flows into an inner diameter of a disk. Rather, claim 14 recites that a disk is guided into close proximity of a nest by “directing” gas into the inner diameter hole of the disk. It is submitted that a passive result of gas propagating to the inner diameter hole of the disk in Thomas does not anticipate the claim 14 limitation of “directing” gas into the inner diameter hole of a disk. This difference would be readily understood by one of ordinary skill in the art, as evidenced by the Thomas patent, itself, which describes that its system “directs” gas at the outer edge of a disk. (See Figure 1C and col. 4, lines 42-43 of Thomas).

Therefore, it is submitted that Thomas does not anticipate claim 14. It is submitted that claims 15-21 are also patentable over Thomas because claims 15-21 depend from and, therefore, include the limitations of claim 14 noted above.

Claims 14-16, 18 and 19 have been rejected under 35 U.S.C. §102(b) as being anticipated by Tzur. In particular, the Office Action states:

Regarding claim 14, Tzur et al. employ a method of stabilizing a flexible optical medium wherein disks (20) and (22) with holes (70) are positioned within a disk drive/nest and wherein the disks are guided into position by directing gas into the inner diameter holes (Figure 10; col. 1, lines 16-27; col. 5, lines 17-37; col. 6, lines 2-13).

(Office Action, 2/13/07, p. 6)

It is submitted that Tzur does not disclose that its cartridge directs gas to the inner diameter hole of the disk. As discussed above with respect to Thomas, the passive flow of gas is not the same as the directing of a gas. Moreover, there is no “nest” or other receiving structure disclosed by Tzur. The disks that are rotatably mounted in the cartridge of Tzur are not guided anywhere but, rather, affixed to and rotated by spindle assembly when the cartridge is inserted into a drive. In addition, the Bernoulli effect

disclosed in Tzur is not in regards to a disk but, rather, to a stabilizer 12 that is securely attached to a positioning block. (Tzur, col. 3, lines 40-43; Figure 1). Therefore, it is submitted that claims 14-16, 18 and 19 are patentable over Tzur.

Claims 14-23 have been rejected under 35 U.S.C. §103(a) as being unpatentable over Davis in view of Granneman and Wu. It is submitted that claims 14-23 are patentable over the cited references. Claim 14 includes the limitation of “guiding the disk into close proximity of the nest by **directing gas into the inner diameter hole** of the disk.” (emphasis added).

The Office Action states:

Regarding claim 14, Davis teaches a method of nano-imprinting an embossable film upon a disk, such as optical, magnetic and magneto-optic disks by heating the disk prior to placing/positioning the disk in the mold/nest (Abstract; paragraphs [0004-0006; 0072-0079]. Davis does not expressly state the disk has a hole defined by an inner diameter edge nor that gas is directed into an inner diameter of the hole.

However, Grannemen et al. disclose a method and apparatus for contactless preheating of a substrate **by directing gas at the substrate** to both heat the substrate and to support it within the apparatus (Abstract; Figures 1 and 2) and **Wu et al. demonstrate that magnetic disks, suitable for nanoimprint lithography contain a hole as claimed** (Figure 1 and Figure 2).

Therefore it would have been *prima facie* obvious to one having ordinary skill in the art at the time of the claimed invention to preheat the disk disclosed by Davis, containing a hole as evidenced by Wu et al., with the method disclosed by Grannemen et al. for the purpose of preheating the disk for the purpose as disclosed by Grannemen et al. of uniformly heating the disk with no thermal stresses being produced (page 7, lines 37-38). The examiner notes that by placing the disk disclosed by Davis in the apparatus disclosed by Grannemen et al., gas is directed into the inner diameter hole of the disk.

(Office Action, 2/13/07, pp. 7-8)

Applicants disagree with the assertions in the Office Action. It appears that the Examiner is relying on Granneman for teachings of directing gas at the surfaces of a

wafer to float it. More particularly, the Examiner is asserting that it would have been obvious to combine the semiconductor wafer equipment of Granneman to process a disk containing a hole of Wu to arrive at a method whereby gas is directed to the inner diameter hole of the disk.

It is respectfully submitted that such a conclusion is inapposite. First, it is submitted that the Office Action has not provided any explanation as to *why* one of ordinary skill in the art would be motivated to combine the teachings of Granneman with that of Davis. Furthermore, for the sake of argument, even if one of skill in the art could combine the teachings of these references, it would not result in directing gas to the inner hole of the disk. Rather, Granneman teaches suspending a wafer by directing gas to both **surfaces** of the wafer. Moreover, it appears that there is a uniform distribution of the gas inlets 10 across the surfaces of the wafer as shown in Figures 1 and 2 of Granneman. If one were to replace the wafer of Granneman with a disk containing a hole, it would not change the teachings of Granneman that the gas is distributed along both "surfaces" of the disk, which is in contrast to the claim 14 limitation that gas is directed into the inner diameter hole of a disk.

Therefore, it is submitted that claim 14 is patentable over the cited references. It is submitted that claims 15-23 are also patentable over the cited references because claims 15-23 depend from and, therefore, include the limitations of claim 14 noted above.

Claim 24 has been rejected under 35 U.S.C. §103(a) as being unpatentable over Davis in view of Granneman and Wu as applied to claims 14-23 above, and further in view of Bailey. Claim 24 depends from and, therefore, includes the limitations of claim 14 noted above. It is submitted that Bailey fails to cure the deficiencies of the references noted above in regards to claim 14 and, therefore, claim 24 is patentable over the cited references.

In conclusion, applicants respectfully submit that in view of the arguments and amendments set forth herein, the applicable objections and rejections have been overcome.

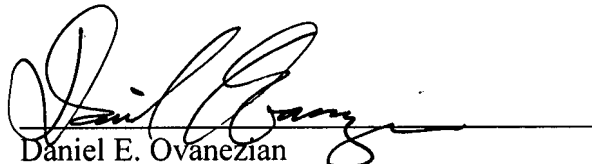
If the Examiner believes a telephone interview would expedite the prosecution of this application, the Examiner is invited to contact Daniel Ovanezian at (408) 720-8300.

If there are any additional charges, please charge our Deposit Account No. 02-2666.

Respectfully submitted,

BLAKELY, SOKOLOFF, TAYLOR & ZAFMAN LLP

Dated: 6/13, 2007

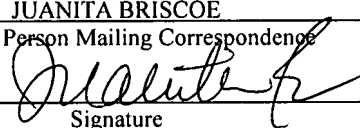

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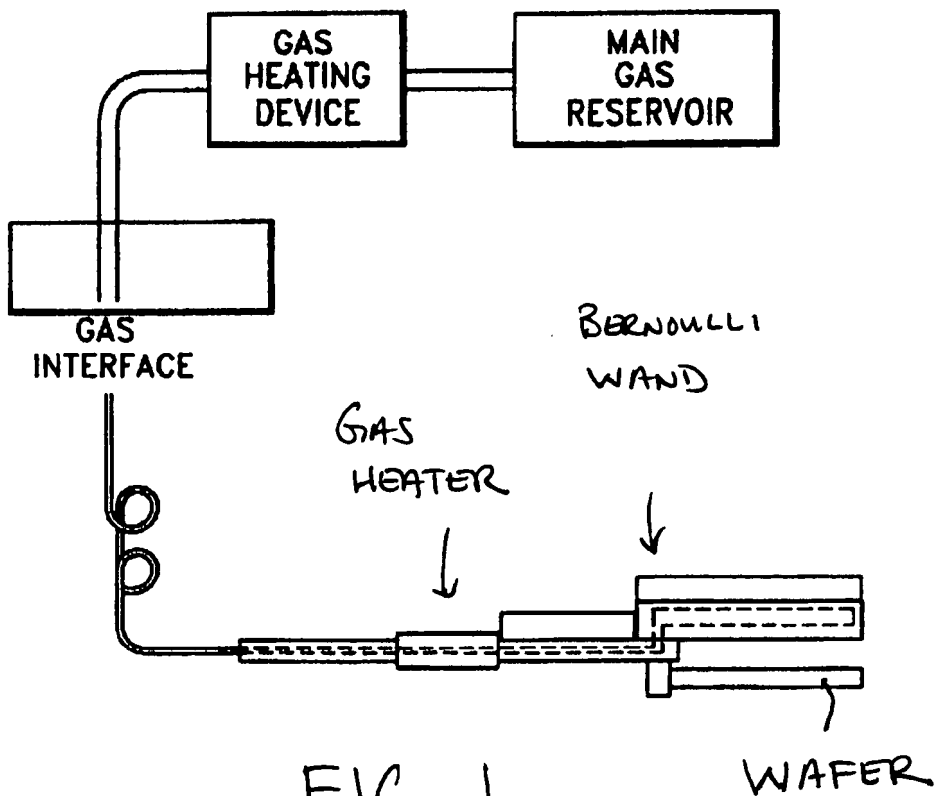


FIG. 1
(PRIOR ART) added